09/496041
STN Search Summary

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FILE 'CAPLUS' ENTERED AT 19:38:34 ON 28 MAR 2001
L1 2123 S GMP! OR (GUANOSINE (2W) MONOPHOSPHATE)
L2 1302 S IMP! OR (INOSINE (2W) MONOPHOSPHATE)
L3 3304 S L1 OR L2
L4 891 S L3 (P) (BIOSYNTHES? OR SYNTHESI? OR PRODUC?)
L5 61 S L4 AND (CORYNE? OR COLI OR SUBTILIS)
L6 14 S L5 AND (SYNTHASE OR SYNTHETASE)
L7 0 S L6 AND KINASE?
L8 2 S L5 AND KINASE?

L6 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2001 ACS
AN 1998:197631 CAPLUS
TI Processes for producing sugar nucleotides and complex carbohydrates
IN Koizumi, Satoshi; Sasaki, Katsutoshi; Endo, Tetsuo; Tabata, Kazuhiko; Ozaki, Akio
PA Kyowa Hakko Kogyo Co., Ltd., Japan; Koizumi, Satoshi; Sasaki, Katsutoshi; Endo, Tetsuo; Tabata, Kazuhiko; Ozaki, Akio
SO PCT Int. Appl., 119 pp.
DT Patent
LA Japanese

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9812343	A1	19980326	WO 1997-JP3226	19970912
	CA 2237849	AA	19980326	CA 1997-2237849	19970912
	AU 9742203	A1	19980414	AU 1997-42203	19970912
	EP 870841	A1	19981014	EP 1997-940365	19970912
	CN 1207135	A	19990203	CN 1997-191606	19970912
PRAI	JP 1996-244451	19960917			
	JP 1996-285066	19961028			
	WO 1997-JP3226	19970912			

AB Sugar nucleotides are manufd. with microorganism or enzyme producing NTP from nucleotide precursor and with microorganism or enzyme producing sugar nucleotides from sugar and NTP. Complex carbohydrates are manufd. with the described microorganism/enzyme and microorganism/enzyme that produces complex carbohydrates from sugar nucleotide and complex carbohydrate precursor. Also given was prodn. of N-acetylglucosamine-1-phosphate with galactokinase-high microorganism.

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
AN 1998:122666 CAPLUS
TI A novel process of ***inosine*** 5'- ***monophosphate*** ***production*** using overexpressed guanosine/inosine ***kinase***
AU Mori, H.; Iida, A.; Fujio, T.; Teshiba, S.
SO Appl. Microbiol. Biotechnol. (1997), 48(6), 693-698
AB A novel process for producing IMP (5'-IMP) has been demonstrated. The process consists of two sequential bioreactions; the first is a fermn. of inosine by a mutant of ***Corynebacterium*** ammoniagenes, and the second is a unique phosphorylating reaction of inosine by guanosine/inosine ***kinase*** (GIKase). GIKase was produced by an Escherichia ***coli*** recombinant strain, MC1000(pIK75), which overexpressed the enzyme up to 50% of the total cellular protein. The overproducing plasmid, pIK75, which was randomly screened out from deletion plasmids with various lengths of intermediate sequence between the E. ***coli*** trpL Shine-Dalgarno sequence, derived from the vector plasmid, and the start codon of the GIKase structural gene. In pIK75, the start ATG was placed 16 bp downstream of the trpL Shine-Dalgarno sequence under the control of the E. ***coli*** trp promoter. Fermn. of inosine and its phosphorylation were sequentially performed in a 5-1 jar fermenter. At the end of inosine fermn. by C. ammoniagenes KY13761, culture broth of MC1000(pIK75) was mixed with that of KY13761 to start the phosphorylating reaction. Inosine in the reaction mixt. was stoichiometrically phosphorylated, and 91 mM 5'-IMP accumulated in a 12-h reaction. This new biol. process has advantages over traditional methods for producing 5'-IMP.